



Frisco Texas:

A Conversation about Conservation

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Director of Public Works
City of Frisco, Texas

November 5, 2015



North Texas Municipal Water District

**49 Customer Cities, Towns,
and Water Supply
Corporations**

1.6 million people

13 Member Cities

**Allen
Farmersville
Forney
Frisco
Garland
McKinney
Mesquite**

**Plano
Princeton
Richardson
Rockwall
Royse City
Wylie**

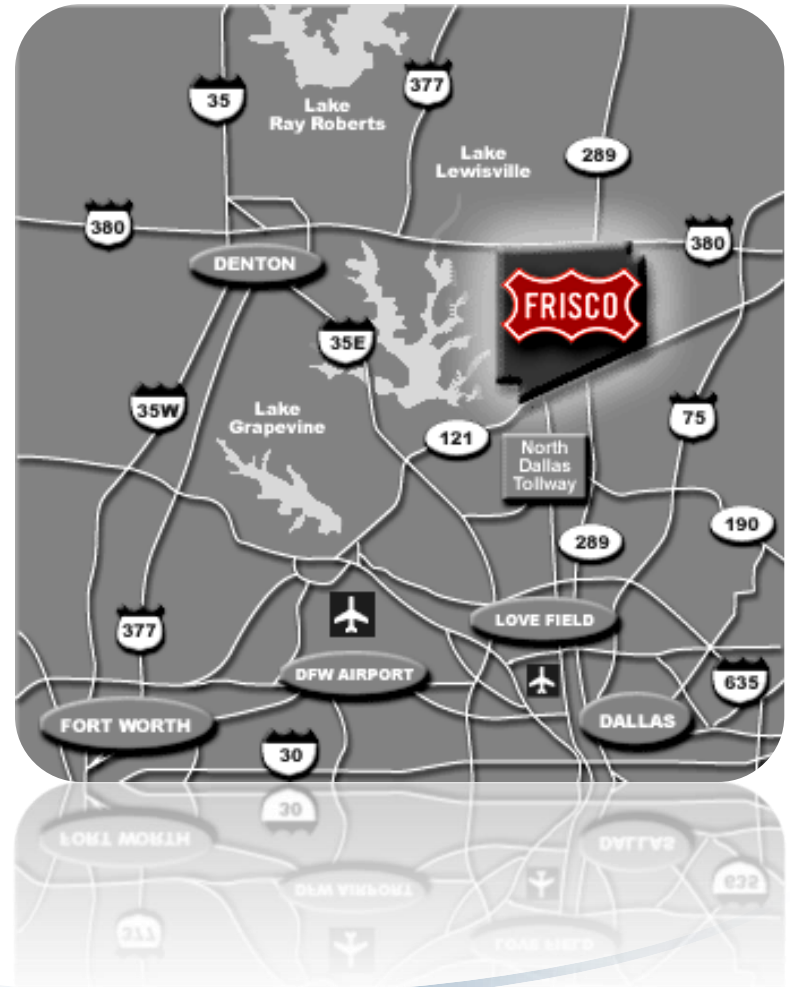


Water Supply Reservoirs

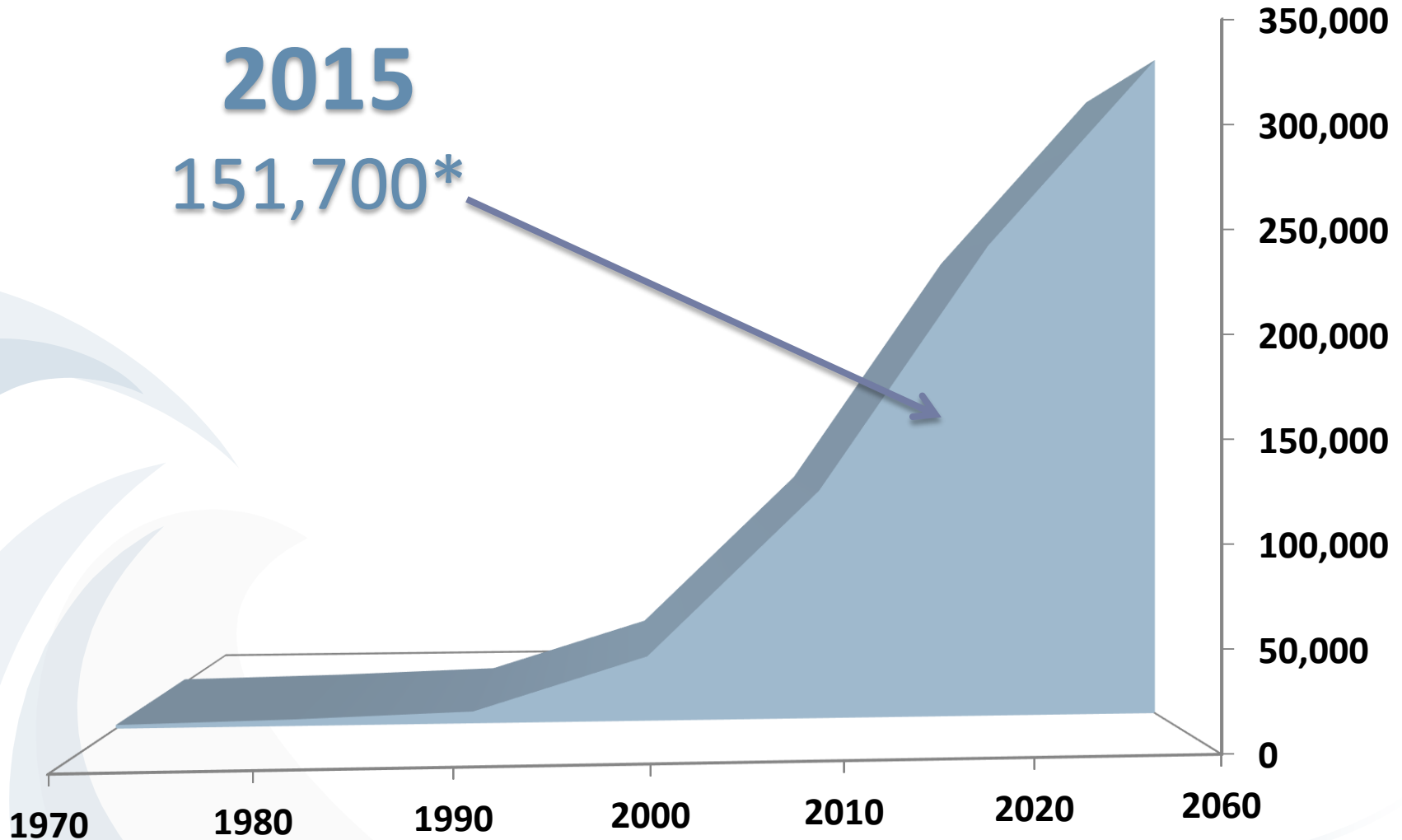


Location

- **Frisco, Texas**
- Denton and Collin County
- 70 square miles
- Bordered by McKinney, Plano, Allen, Little Elm, The Colony, and Prosper
- About 50% Developed



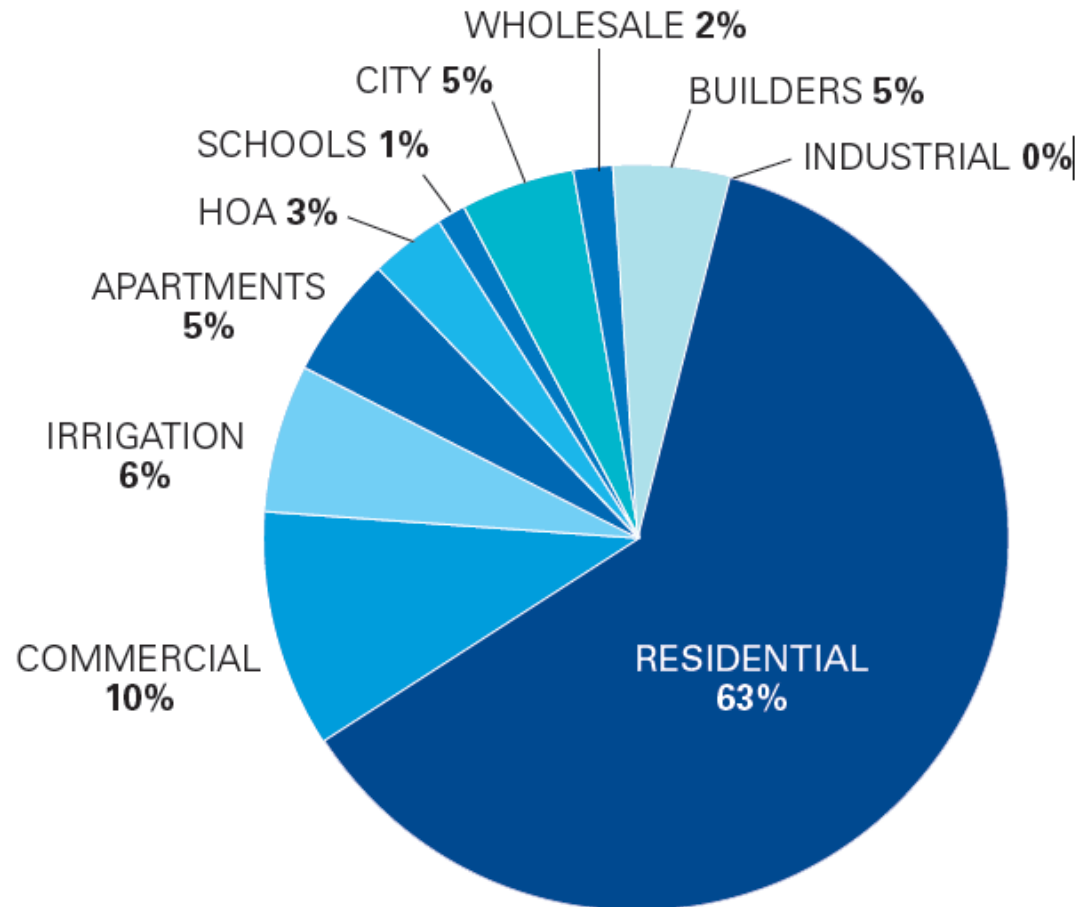
Increasing Population



*As of November 1, 2015

Typical 2014 Water Usage

50,000 Water Customers



Frisco: *Growth Characteristics*

Rapid Growth

Water Usage

Water System Expansions

Irrigation Systems



Dr. Pepper Ballpark



Dallas Cowboys Headquarters



Toyota Soccer Center

The Water Education Team



Joyce Warren – Water Resources Manager
Kristy Woodard – Water Education Coordinator
Misty Klein – Water Education Coordinator

Ron Garcia – Irrigation Supervisor
Charles Nash – Irrigation Inspector
Kyle Poe – Licensed Irrigator
Michael Sjogren – Irrigation Inspector



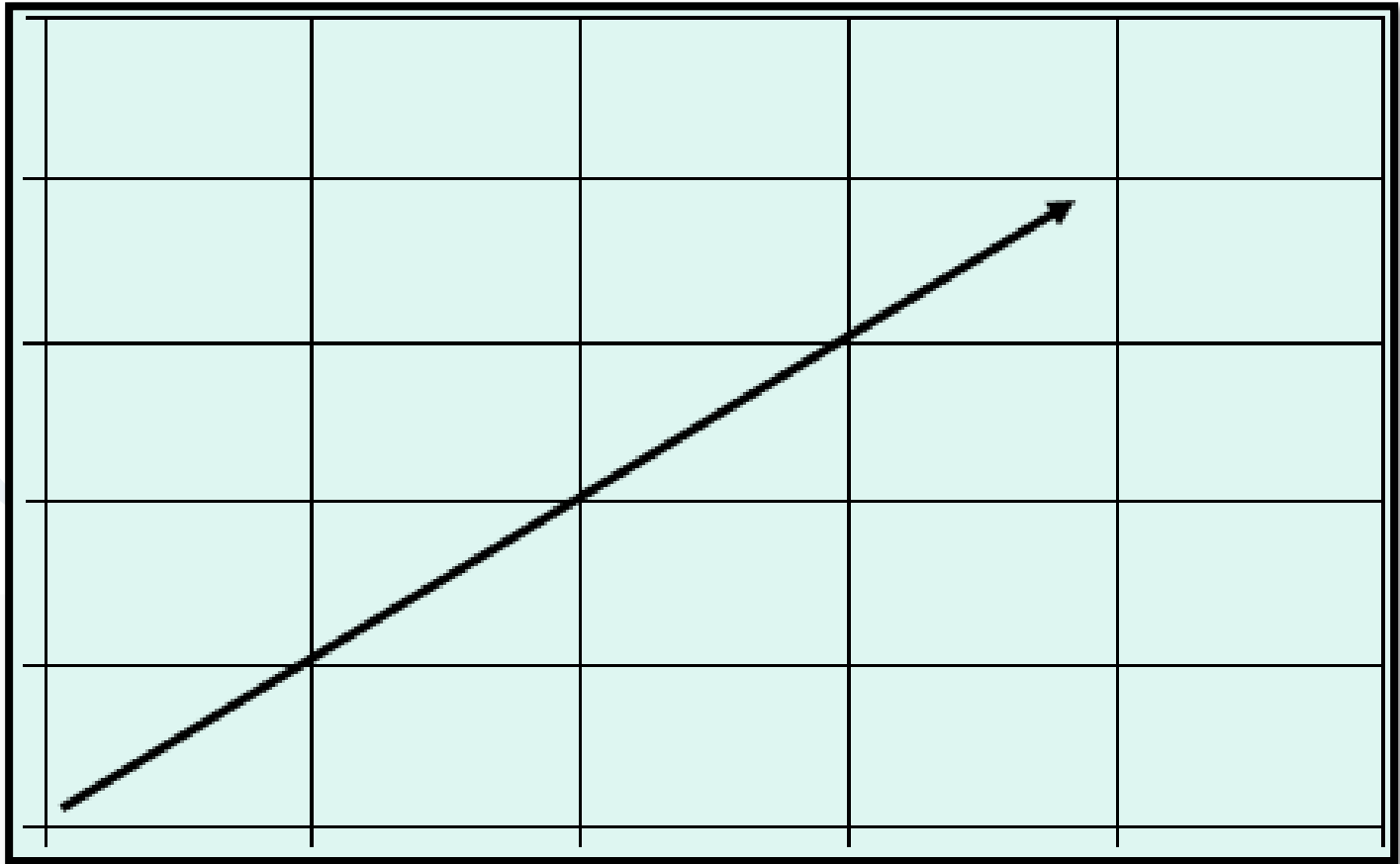
“All Things Water”

- Drinking Water
- Stormwater
- Reclaimed Water
- Wastewater



Water Savings

Gallons



Resources

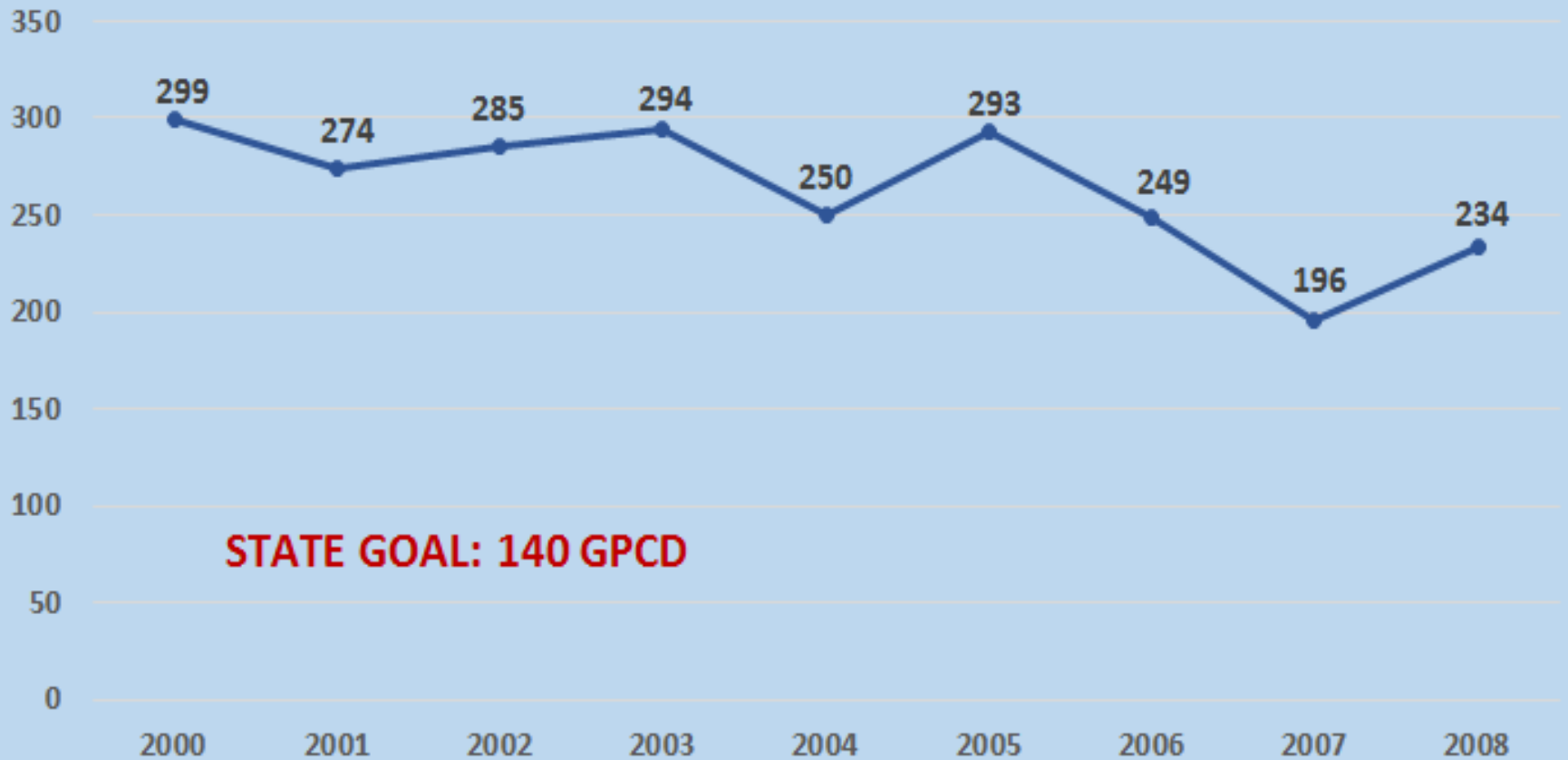
What We Know Needs Watering



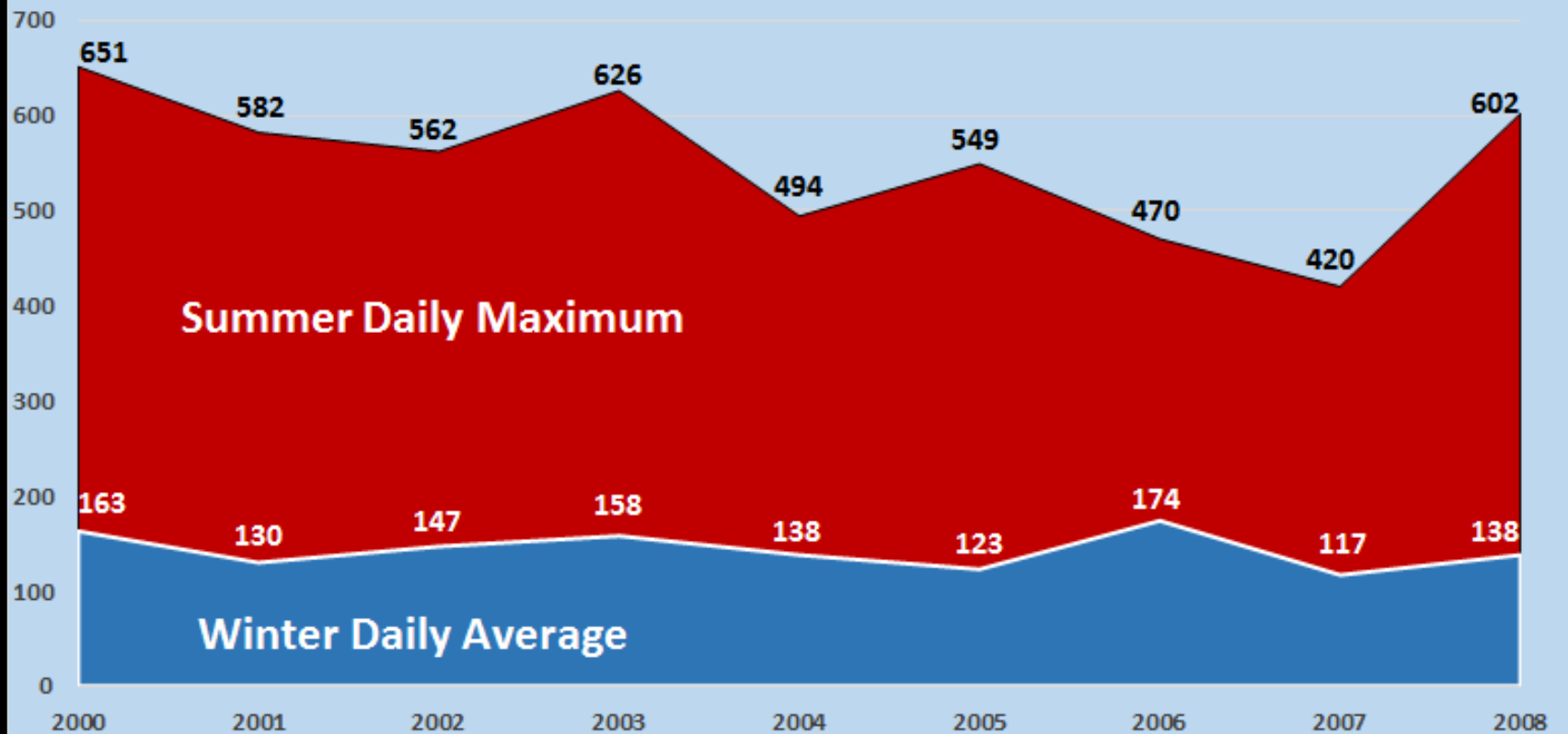
What Residents Think Needs Watering



Historical Annual GPCD



Winter vs Summer GPCD



Water Management Plan

Water Conservation – Frisco Based

Water Efficiency Plan (Year Round) – Daylight Saving Time
Emergency Service Levels I and II

Drought Contingency – NTMWD Based

Stage 1 : Mandatory – 5% Reduction (two days/week watering)

Stage 2 : Mandatory – 10% Reduction (one day/week watering)

Stage 3 : Mandatory – 10%+ Reduction (no outdoor watering)

Best Management Practices For Being Water Wise

Frisco's Best Management Practices allow for flexibility in watering lawns and landscapes. Our water customers are joining the effort to use water more efficiently and watering only when necessary, based on the City of Frisco's own weather station data.



Current Watering Schedule

Keep your sprinkler system turned OFF and check our website for watering recommendations based on Frisco's weather station data.

If watering is necessary, watering schedules are based on the regularly scheduled residential trash collection day.

No outdoor watering from 10 am to 6 pm during Daylight Saving Time.

Water using a hand-held hose, soaker hose, and drip/ bubbler system up to two hours daily.



Free Sprinkler System Check-Up

Need help setting your sprinkler system controller? Contact us to schedule a free sprinkler system evaluation.



Weekly Lawn Watering Advice

Not sure how much to water your lawn?

Sign up for Frisco's weekly newsletters with lawn watering advice based on data from the City's weather station.



Plant Native and Adaptive Landscapes

Native and adaptive plants conserve water, beautify your landscape, attract butterflies, and are Texas tough for hot, dry summers.



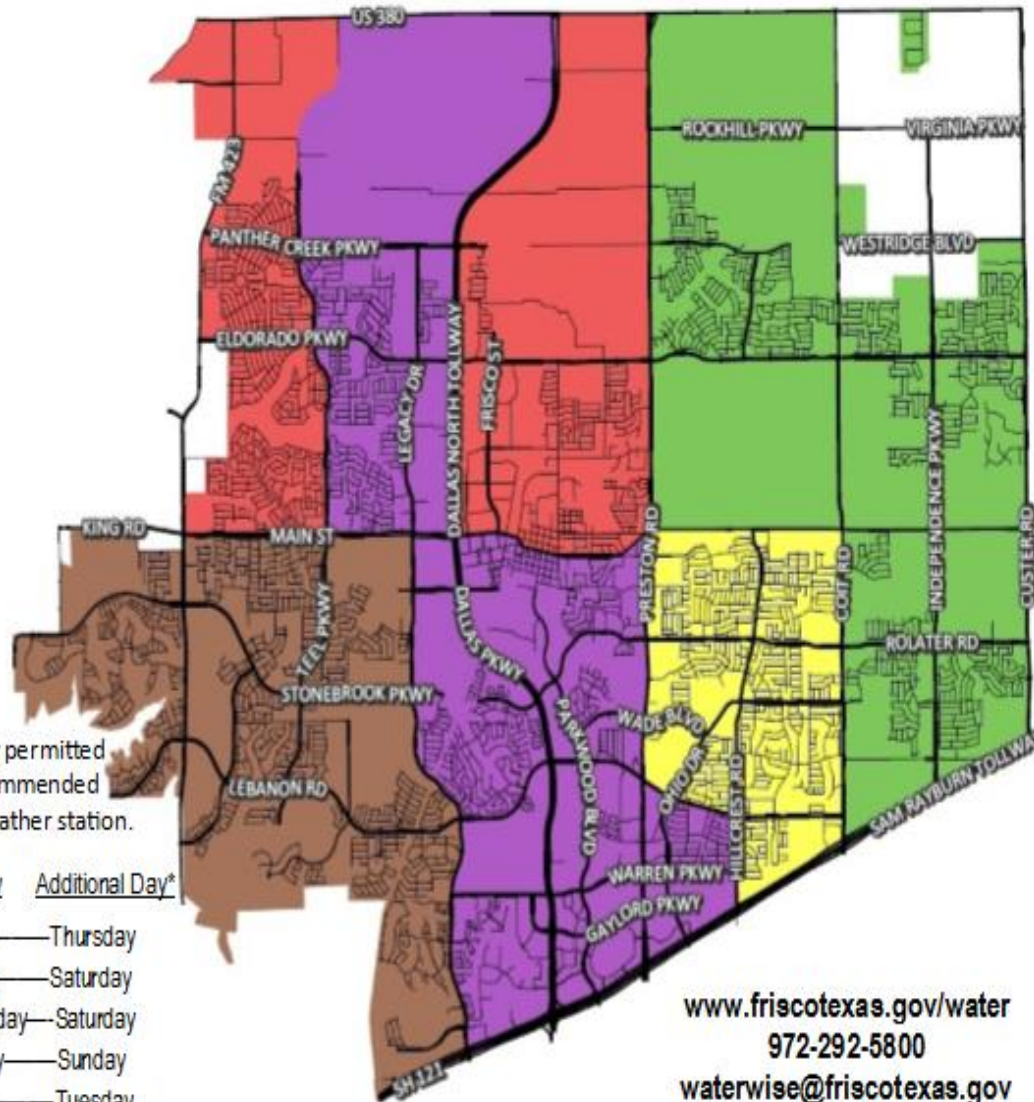
www.friscotexas.gov/water

waterwise@friscotexas.gov

972-292-5801 Frisco Watering Line



Watering Schedule Map



www.friscotexas.gov/water
972-292-5800
waterwise@friscotexas.gov

Best Management Practices for WaterWise Outdoor Watering

- Water only when necessary based on Frisco's weather station data.
- Keep sprinkler systems *turned off* until data from Frisco's weather station indicates watering is needed.
- Water on your regular residential trash day, when recommended by the weather station.
- No watering 10 am—6 pm during Daylight Saving Time.
- Water by hand using a hand-held hose, up to two hours daily.
- Water using drip irrigation, bubblers and soaker hoses up to two hours any day.
- An additional watering day is permitted when recommended by the city's weather station.
- Schedule a FREE sprinkler system checkup with a City of Frisco licensed irrigator.

To receive weekly watering advisories, visit www.friscotexas.gov/water and subscribe to WaterWise emails or call Frisco's Watering Line 972-292-5801.

Enforcement

- Meter Division Employees (18-20)
- Roving and Focused Patrols
- Time/Date Stamped Photo Evidence
- 2011 issued 4,092 Violations
- 2012 issued 3,498 Violations
- 2013 issued 2,849 Violations
- 2014 issued 5,023 Violations
- 2015 issued 531 Violations (thru October)



Violation Fees

- 1st Violation - **\$50**
- 2nd Violation - **\$100**
- 3rd Violation - **\$200**
- 4th Violation - Citation
- Fee added to Frisco Utility Bill
- 1st violation fee can be waived

Water
Efficiency
Plan



Beware of the Red Sign during drought restrictions



Water Waste in Frisco

Watering Violations



**Watering hard surfaces
ex: streets, sidewalks**



**Watering flowing away
from property**



System in need of repair



**Watering during rain
or below 40 degrees**

Free Sprinkler System Check-Ups

Year	Annual Checkups
2006	660
2007	515
2008	933
2009	1,260
2010	1,193
2011	1,592
2012	2,673
2013	2,599
2014	3,653
2015	2,935*



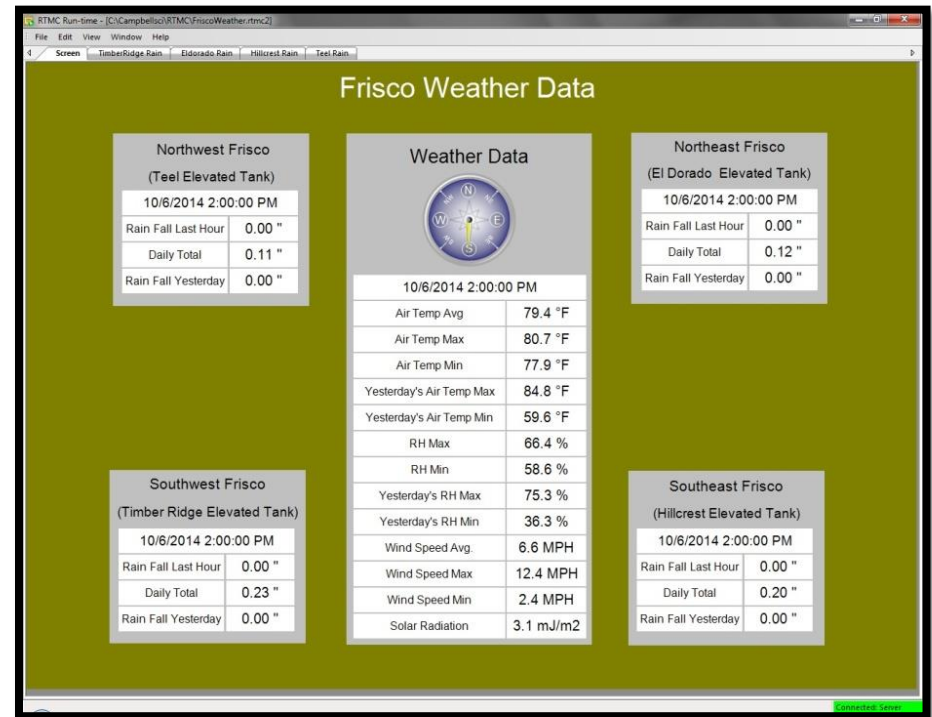
***Through October 2015**

ET Weather Station



Frisco's Weather Station

- Installed in 2008
- Four Automatic Rain Gauges
- Texas A&M Methodology



Weather Computer Screen

Lawn Watering Advice

YEAR	NO WATERING	ONCE A WEEK	TWICE A WEEK	# WEEKS
2015	26	15	3	44*
2014	40	12	0	52
2013	35	17	0	52
2012	31	20	1	52
2011	33	8	11	52
2010	25	24	3	52
	190	96	18	304
	62%	32%	6%	100%

*** Through October 2015**



Weekly Lawn Watering Advice



One day of watering is needed for the week of Monday (9/21) - Sunday (9/27). Please apply up to **0.25 inches** of water using the **Cycle and Soak method** to your lawn on your regular trash collection day. Learn to apply the correct amount of water at friscotexas.gov/wateringwisely.

Residents may hand-water using a hand-held hose with an automatic irrigation, or bubbler system up to two hours daily. Watering is not allowed from 6 am - 6 pm.

- Frisco Website
- Watering Line

YEAR	SUBSCRIBERS
2010	412
2011	865
2012	1,215
2013	4,485
2014	10,572
2015	14,674

Typical Residential Landscape





Workshops



Rain Barrel Distribution Event





WaterWise Education

Using Water Wisely

Sprinkler System Checkups

WaterWise Workshops

Weekly E-Newsletter & Video

Block Captain Program

HOA Partnerships

Smart Controller/PRV Rebates

New Home Irrigation Checkups

Conserve Track Software

Rain Barrel Sale

Texas SmartScape Plant Sales

Commercial Irrigation Checks

Weather Station Pledge

SPRINKLER INSPECTIONS (HB 1656)



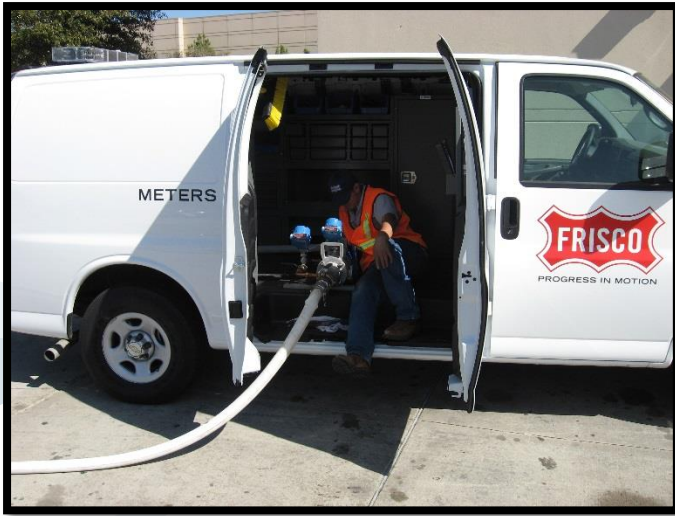
Month	Irrigation Inspections	Irrigation Permits Processed
July	274	218
August	249	152
September	314	165
October	156	146
Total	993	681



AMR to AMI Reading



Meter Testing



Non-Potable Water Supply



Water Wells



Warren Park



Frisco Commons

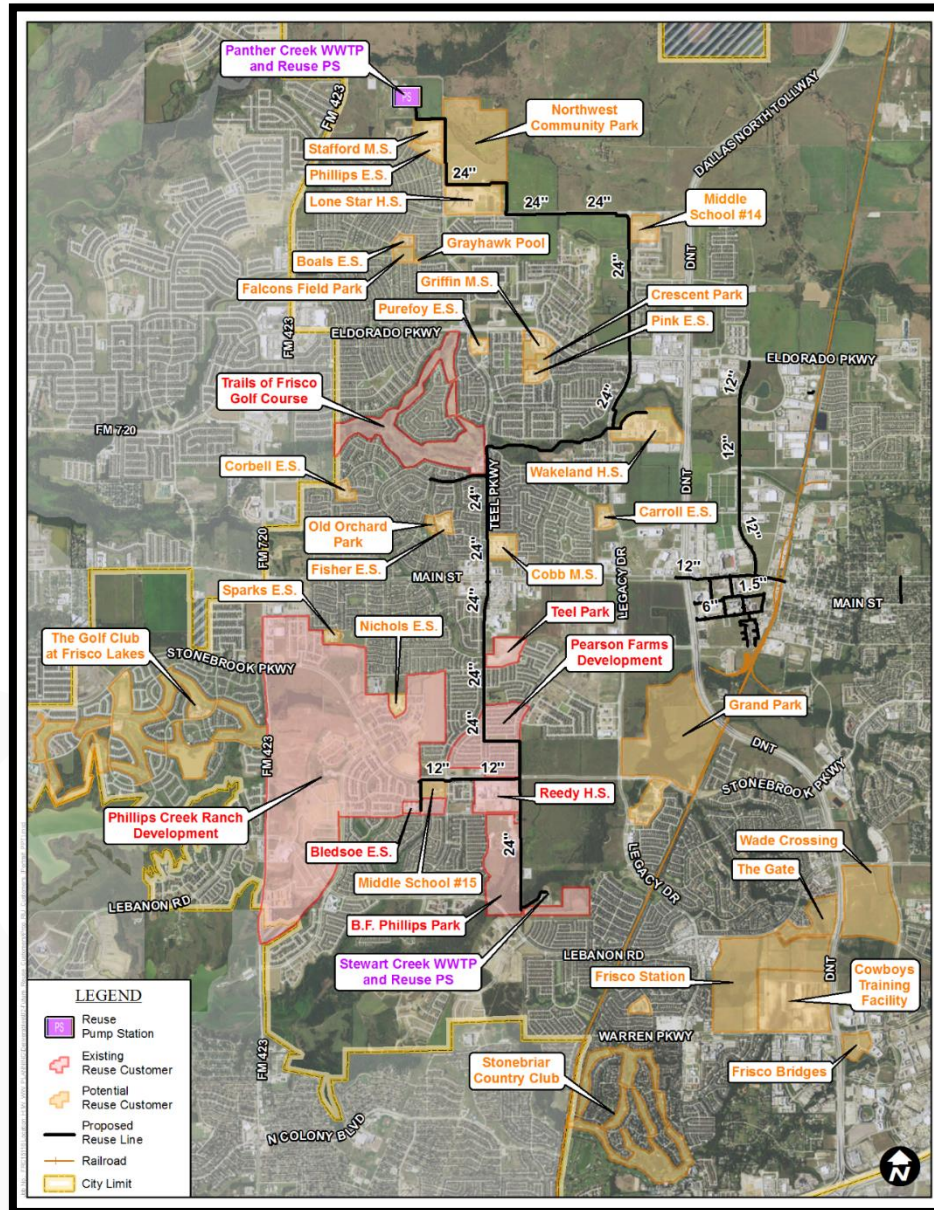


Bacchus Park

Reclaimed Water Supply



Frisco Reclaimed Water System



Reclaimed Pump Stations



Stewart Creek



Panther Creek

Operations Computer for Reclaimed Water



Reclaimed Water Customers



The Trails Golf Course



Pearson Farms Common Areas



B.F. Phillips Park



**Stewart Creek
Greenbelt**

FISD Partners with Frisco



Bledsoe Elementary

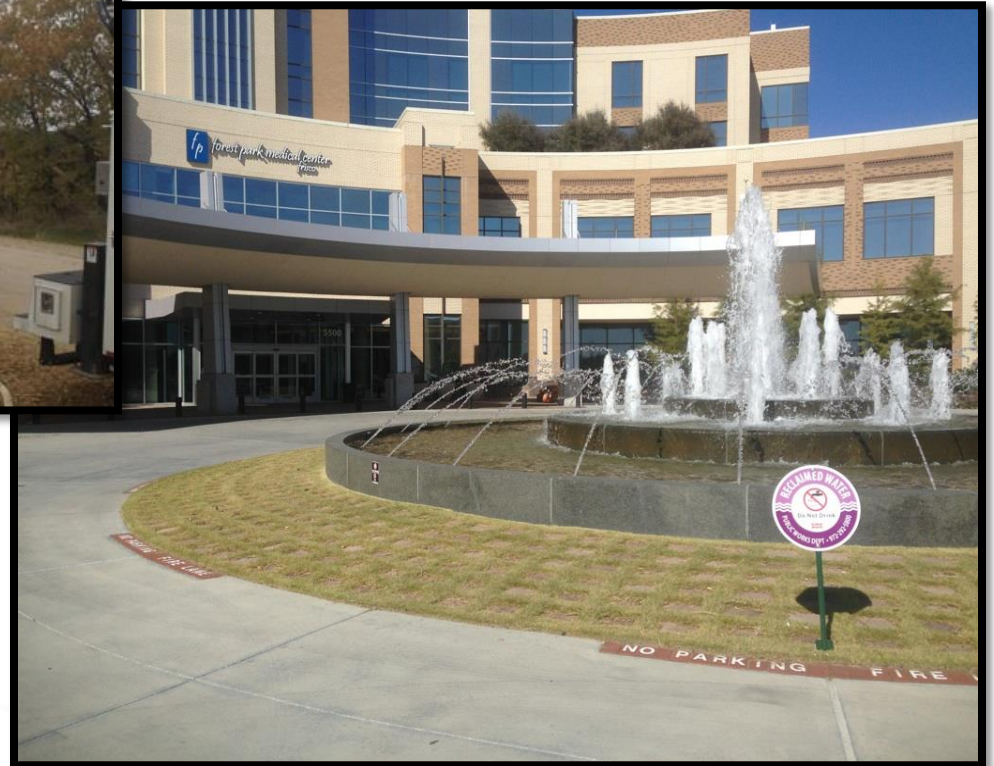


Reedy High School



Pearson Middle School

Reclaimed Water Program For Fountains

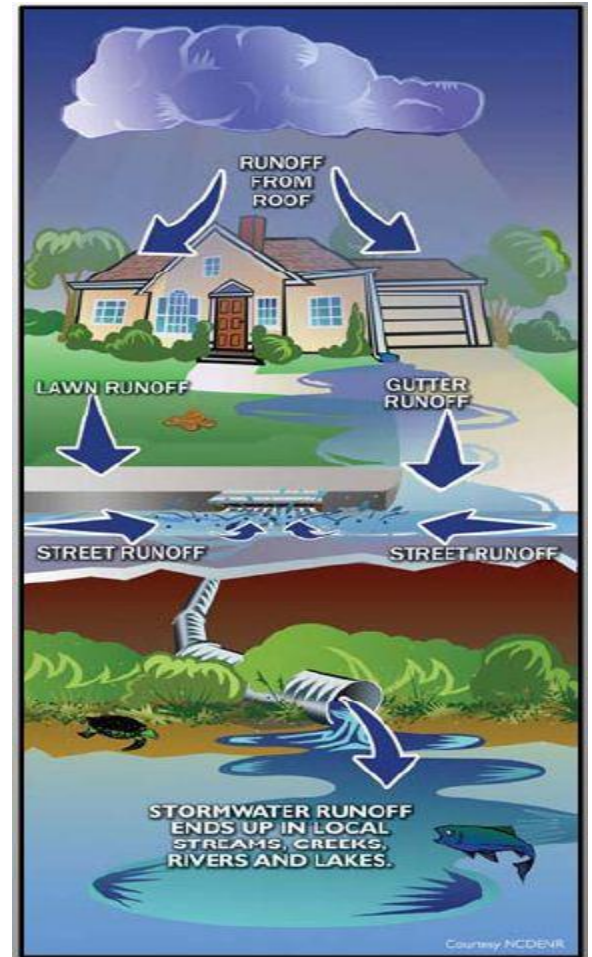


Stormwater Quality Program



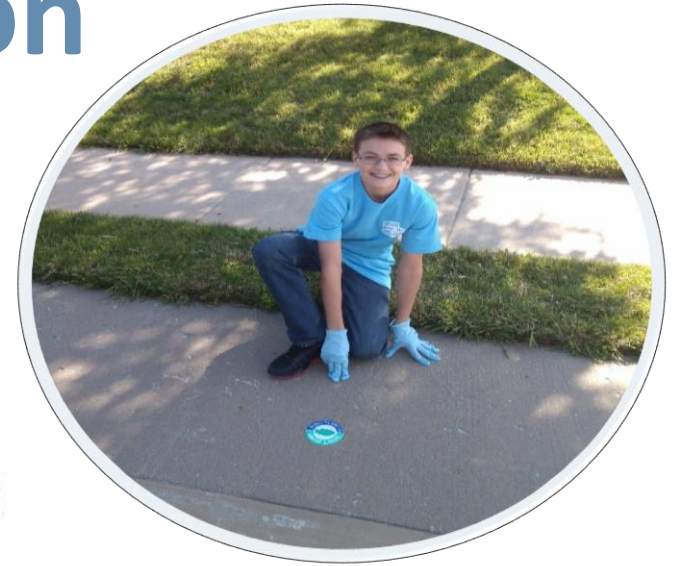
What is stormwater?

Answer: Water discharging to the Waters of the US.



Watershed Protection

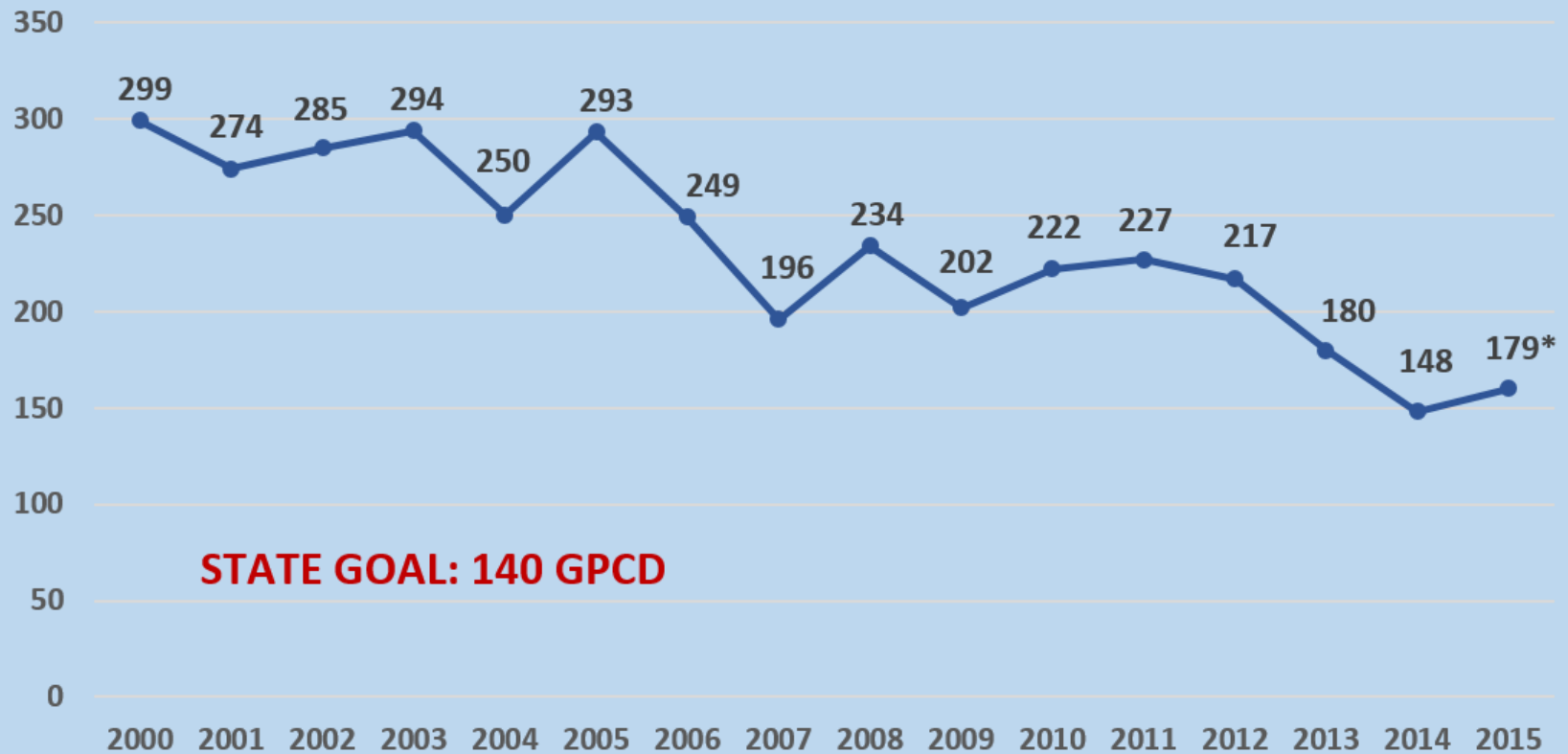
More than 5,000 storm drains marked



My Favorite Stormwater Slide

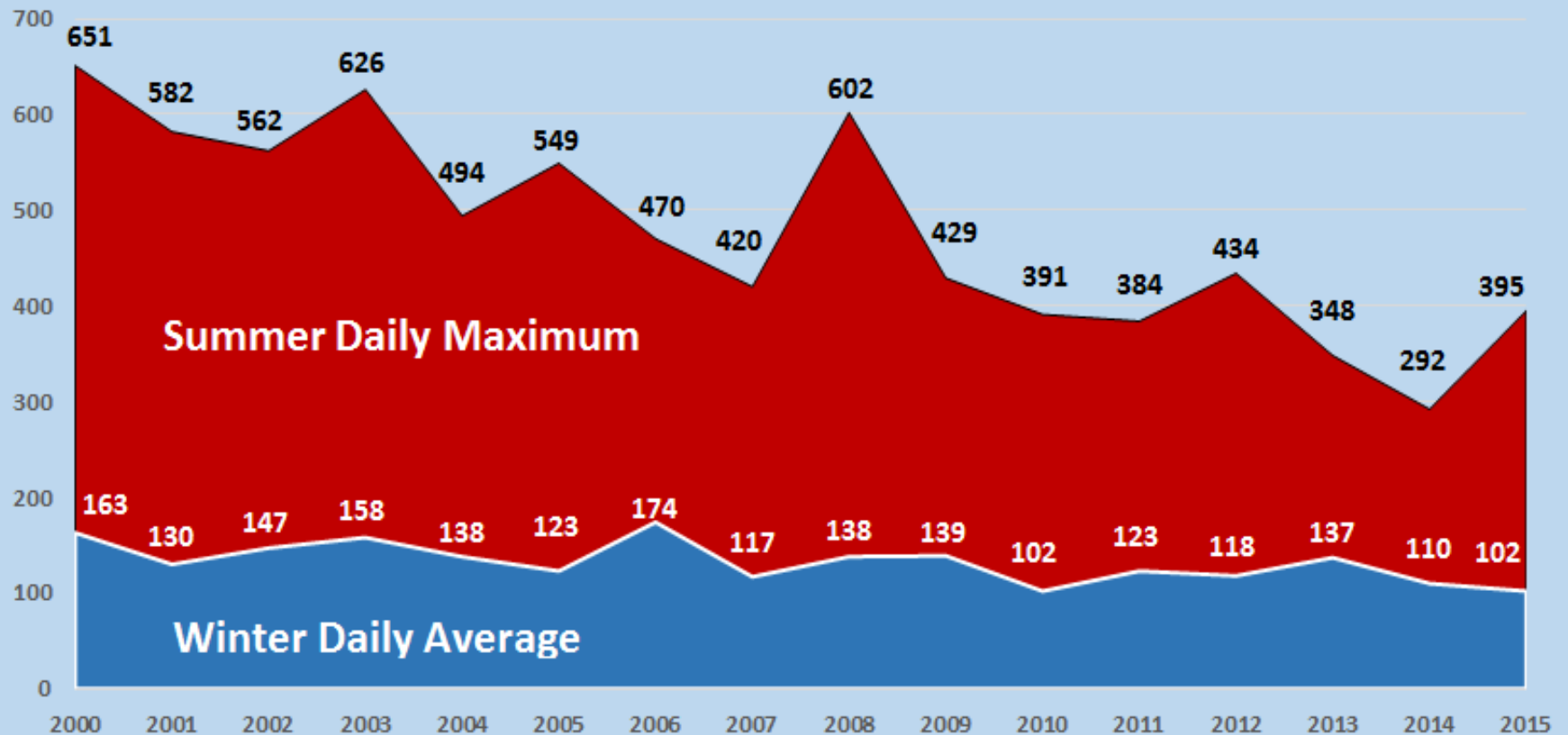


Historical Annual GPCD



* through October 2015

Winter vs Summer GPCD





Let the Conservation Conversation Continue!

Questions?

